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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,316	04/07/2006	Peter Quell	SCH-16606	7356
40854 7590 01/22/2009 RANKIN, HILL, & CLARK LLP 38210 Glenn Avenue WILLOUGHBY, OH 44094-7808				
EXAMINER				
WIEHE, NATHANIEL EDWARD				
ART UNIT		PAPER NUMBER		
3745				
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01/22/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,316

Applicant(s)

QUELL ET AL.

Examiner

NATHANIEL WIEHE

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 12122008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments, see pages 7 and 8, filed 6 October 2008, with respect to the rejection(s) of claim(s) 1-11 and 14-17 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of CN 1415854A.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 12 December 2008 is noted. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 17 recites the broad recitation or compounds materials, and the claim also recites such as Glass Fiber-Reinforced Plastic or Carbon Fiber-Reinforced Plastic which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by CN 1415854A. CN 1415854A discloses a wind-driven power-plant rotor comprising blades (1) having a thickness which decreases from the blade root to the blade tip. The blades include a leading edge, a trailing edge, a suction side and a pressure side, and are inherently contoured such that impacting incident airflows generate lift. The blades also include planar elements (2) mounted to the suction side of the blades about there narrow sides. CN 1415854A planar elements, i.e. "wind fences" (2), prevent and/or reduce cross flow, i.e. "radial air current of the paddle". The planar elements extend the entire width of the blades (See Fig. 2) and are straight in its longitudinal direction. The planar element does not significantly deviate from the tangent line touching the circle

formed by a radius of the planar element position. The blades (1) include several planar elements. At least one of which is mounted in a region between the blade root and half the length of the blade, or more specifically in a region between the blade root and one third of the length of the blade.

In regard to claim 10, since the blades of CN 1415854A do not include a transition zone the planar element are inherently mounted in a zone between the blade root and *beyond the transition range* [emphasis added].

In regard to claim 16, the limitation "molded elastically or plastically" is being treated as a product by process limitation; that is that the planar element is made by molding. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulation of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar product is found, a 35 U.S.C. § 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over CN 1415854A in view of Corten (WO02/08600). CN 1415854A discloses the invention substantially as claimed except for the use of a transition zone in the blades.

Corten discloses a wind turbine blades (1) including, in the spanwise direction, a blade root, i.e. connecting part (2), a transition zone (III) and a lift-generating blade contour (5). Corten notes that a connecting part is particularly advantageously provided for its increasing strength in mounting the blade and since it is more economic than a full wind-energy-absorbing blade. Further, Corten notes the desirability to utilize wind-energy-absorbing enhancing devices in the range of the connecting part and the transition zone for the purpose of increasing overall output of the rotor. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the blades of CN 1415854A to include a connecting part and transition zone as taught by Corten for the purpose of improved mounting and reduced cost. Further, it would have been obvious to one of ordinary skill in the art at the time the invention was made to also include the planar elements of CN 1415854A in the transition zone since Corten identifies the transition region as specifically advantageous for the use of wind-energy-absorbing enhancement structures, such as the claimed planar elements.

In regard to claim 17, CN 1415854A discloses the invention substantially as claimed but is silent as to the specific material used for the planar elements. However, it is well known in the art of wind turbine blades to construct the various blade elements from fibre reinforced resins as evidenced by Corten, since such materials are known for their high strength and low weight. Specifically, Corten identifies wind-energy-absorbing enhancement elements constructed from fibre reinforced resin that is identical to the connecting part. Corten also notes that such elements may be glued or welded to the

structure. Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the planar elements of CN 1415854A by utilizing a fibre reinforced material, as evidenced by Corten, since such materials are known for their high strength and light weight.

Allowable Subject Matter

Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The instant invention is deemed to be a non-obvious improvement over the invention of CN 1415854A. The improvement comprises the use of a planar element having that is air-permeable at least segment-wise by having the forms of a gird or perforations. Such a planar element, including any intervening limitations, is not known in the art of wind turbine blades.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANIEL WIEHE whose telephone number is (571)272-8648. The examiner can normally be reached on Mon.-Thur. and alternate Fri., 7am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571)272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/NATHAN WIEHE/
Nathan Wiehe
Examiner
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/Edward K. Look/
Supervisory Patent Examiner, Art Unit 3745